

Claims

1. Device for stacking flat, flexible objects standing on their narrow edge in a stacking compartment in an upright position, whereby the objects (3) to be fed in one after the other can be conveyed obliquely to a moveable stack support (10) or to the uppermost object in the stack (7), against which it rests with its long edges, and having been fed into the stacking compartment, by means of its long edges facing away from the stack support (10), up to an abutment (11) with the help of a stack roll (6), characterized in that, to the side of a plane of conveyance for the path of the objects (3) into the stacking compartment, one or more hook-shaped elements (1) for diverting and supporting the rear portions – with regard to the direction of movement – of larger objects (3) which are placed one above the other in the direction of the stack support (10) and are fastened at one end to a shaft (13) driven in a controlled manner, whereby the distance of the inner contour of the free end of the hook-shaped elements (1) from the plane of conveyance is greater than the thickest object (3) and the distance of the outer contour of the free end from the plane of conveyance is large enough to enable the rear portions of large objects in the stack (7) in the direction of conveyance to be supported in order to clear the insertion channel, and in that sensors (5) for detecting the front and rear edges of the objects (3) conveyed with predefined speed and a means of evaluation for detecting, from the sensor signals, the positions of the front and rear edges at specific points in time, are provided, and in that a controller for controlling the motor (9) of the shaft (13) for the hook-shaped element(s)(1) in accordance with these time-variable positions is configured such that, when an object (3) enters the stacking compartment, a sensor signal generated by the front edge of the incoming object (3) is triggered, the hook-shaped element(s)(1) is/are oriented in such a manner that the object (3) enters the hook-shaped element(s) (1) and, at the same time, the rear edges of the large objects of the stack (7) are kept out of the insertion channel, and in that the hook-shaped element (1), in synchronization with the movement of the object, is swung out from the plane of conveyance thus enabling the object (3) to enter the stacking compartment without being obstructed, whereby the distance of the hook-shaped element(s) (1) from the abutment is so large that the supporting function remains effective while the hook-shaped element is swung out until the front edge of the incoming object (3) overlaps, to a defined extent, the rear edges of the supported objects that are already in the stack (7), and in that a sensor signal generated by the rear edge of the

incoming object (3) is triggered, and then the hook-shaped element(s) (1) are swung back into their initial position supporting the rear edges.

2. Device according to Claim 1, characterized in that the hook-shaped element (1)
5 has a component directed away from the center of rotation, to which component is attached a component having an almost circular arc-shaped outer contour, the center of curvature of which lies in the center of rotation.

3. Device according to Claim 1, characterized in that the number of hook-shaped
10 elements (1) on the shaft (13) and their distances from the base plate are selected such that all objects of varying heights to be stacked can be supported.

4. Device according to Claim 1, characterized in that the parts of the hook-shaped
elements (1) that are in contact with the objects (3) have a low coefficient of friction.

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5. Device according to Claim 1, characterized in that, after the means of conveyance (4), a stack spindle (8) for shorter objects is disposed between the stack roll (6) and the hook-shaped element(s) (1), on the side of the path of conveyance facing the stack
(7).

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